

Basic Image Editing with Adobe Photoshop

About this Handout	
Technology:	Photoshop
Topic:	Basic Image Editing
Tools or Features:	Photoshop Overview, Opening files, Dimensions, Resolution, Cropping, Resizing, Adjusting Brightness or Contrast, Adjusting Hue or Saturation, File Formats
Audience:	Instructors, designers
Prerequisites:	None
Related TET Workshop(s):	Basic Image Editing I & II

What's Inside	page
Application Overview	3
Opening Files	3
Size Matters--DPI	3
Cropping	4
Resizing	5
Brightness, Contrast, Color	5
Adjusting Brightness or Contrast	5
Adjusting Hue or Saturation	6
File Formats	6

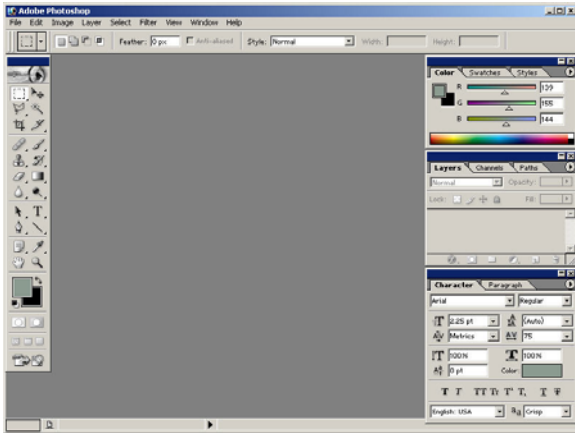


Figure 1 The Photoshop application workspace, toolbox, and menus.



Figure 3 The Photoshop menu bar.



Figure 2 Photoshop's toolbox.

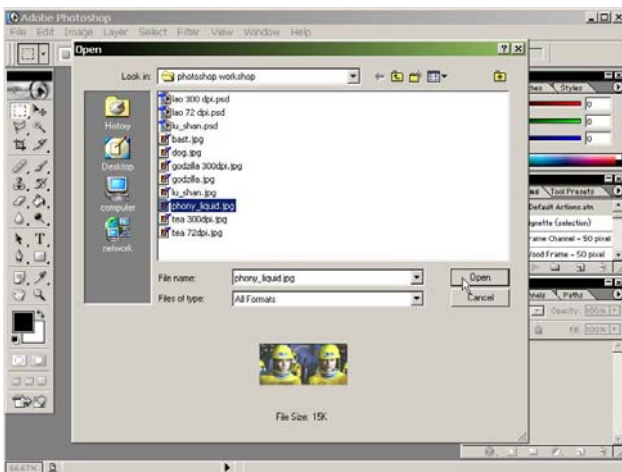


Figure 4 Select your image file and click Open.

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Photoshop Application Overview

Inside Photoshop you will notice several different windows, menu boxes, and bars (Figure 1).

At the top of the application window is the **menu bar** (Figure 2), which contains basic application functions such as Save and Open, Cut, Copy, and Paste, etc. The menu bar also contains advanced options for manipulating and altering your image, for example modifying the saturation or the brightness, and applying special effect “filters”.

The **toolbox** (Figure 3), which floats on the left-hand side of the screen, contains all the basic tools used in Photoshop to edit and modify your image. Clicking on any tool icon will select that tool. Most tools have multiple functions, which can be accessed by clicking and holding on any tool icon.

Floating on the right-hand side is a series of menu boxes and windows which display information about your image and allow you to adjust image attributes and manipulate your image.

The grey background area of the application window is called the workspace, and will contain our image(s).

Opening Files

1. To open a file in Photoshop go to the File menu in the menu bar and click Open...
2. A file browser window will appear (Figure 4). Find your image file, select it, and click Open.
3. Your image file will now appear within its own window inside the Photoshop workspace.

Size Matters—DPI

When editing and preparing images for display it is important to consider the medium over which our images will be transmitted. Are our images for print? Will the be used on a web page? Or maybe they are for a PowerPoint presentation. Each of these media requires that we adjust the size and resolution of our image appropriately.

We know size refers to the actual height and width that our image will be displayed as, but resolution is just as important. Resolution refers to the number of dots per inch that appear in our images final form. For print these really may just be dots. On screen, however, these dots are referred to as pixels.

An image with high resolution (one produced for print, for example) will look very smooth and will show virtually no pixilation. (Figure 5)

An image with low resolution (one produced for the screen—particularly the web) may look far more pixilated (Figure 6).

For print we want high resolution because our printers can handle it, and our pictures will look best. For the screen we must rely on lower resolutions simply because monitors can only handle so much.

A typical monitor is set to display somewhere around 800x600 pixels. This means that a 1”x1”, 600dpi image would fill up most of the screen! It is becoming more and more common that monitors are set to display at higher resolution—somewhere around 1024x768 pixels, but that still doesn’t come close to the capabilities of print.

For this reason we must design screen graphics at a lower resolution: **72dpi is standard for the world wide web**. And because of screen resolution limitations we should measure the dimensions of our images using pixels. To be safe, never publish an image for the web that is more than 800 pixels wide or 600 pixels high.

Unless the image we are using for screen came from the web it is likely that we will have to edit the image so that it is an appropriate resolution and size for display. To do so we rely on Photoshop’s tools for cropping and resizing images.

Cropping

Cropping cuts parts of a picture off in order to reduce the overall size. Cropping can help you focus on certain parts of a picture by eliminating the rest.

To crop an image in Photoshop, start by having your image open.

1. Select the Crop tool from the toolbox (Figure 7).
2. Within your image window, left-click and drag the crop cursor to frame the part of the image you want to retain (Figure 8).



Figure 5 Raeburn’s “Archers” at 600dpi.



Figure 6 Raeburn’s “Archers” at 72dpi.



Figure 7 The Crop tool



Figure 8 Left-click and drag to make a crop selection.

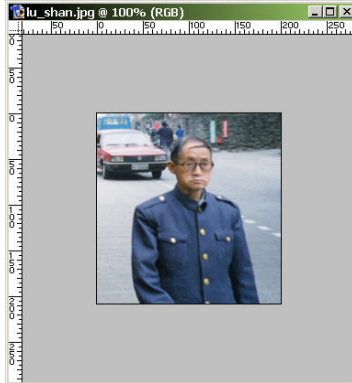


Figure 9 Your cropped selection retains the original's dpi.

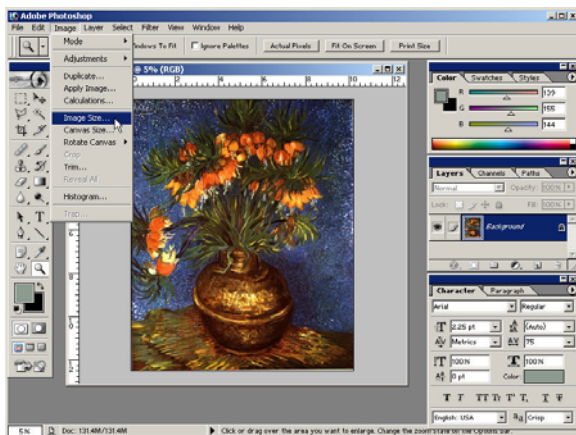


Figure 10 From the Image menu select Image size...

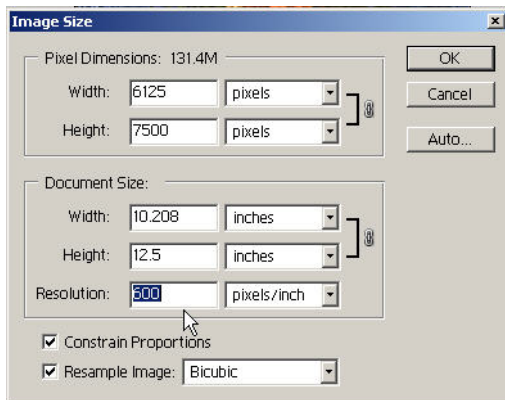


Figure 11 The Image Size menu allows you to change the dimensions and the resolution.

3. You can fine-tune the size and shape of your crop selection by dragging the edges with your mouse.
4. When you are ready to crop, click the Enter or your keyboard or simply double-click the selection.

Your cropped selection will now appear in the image window. (Figure 9)

Resizing

Resizing in Photoshop allows you to change both the physical size in inches or centimeters as well as the resolution.

To resize an image in Photoshop, start by having your image open.

1. From the Image menu select Image size... (Figure 10).
2. In the Image Size menu (Figure 11) you can adjust the width or height of your image by pixels or in inches or centimeters.
3. You can also change the resolution of your image under Document Size.
4. Click OK to apply your image size changes.

Brightness, Contrast, Color

Sometimes the images that we are working with are visually not quite right. This can be very common when scanning in images—especially images from slides. To remedy this, Photoshop has tools that allow you to adjust the brightness, contrast, and color of an image.

Adjusting Brightness or Contrast

Brightness refers to how much lighting is applied to an image. Contrast refers to how much shadowing there is in an image. For example, we might say that on a rainy cloudy day there is little contrast outside—everything is grey. On a bright, cloudless day we could say there is a high amount of contrast—our shadows are deep black.

To adjust the brightness or contrast an image in Photoshop, start by having your image open.

1. Go to the Image menu and under Adjustments choose Brightness/Contrast (Figure 12).
2. In the Brightness Contrast menu left-click and drag the pointers to adjust the brightness or contrast of the image (Figure 13).
3. Click OK to apply your changes.

Adjusting Hue or Saturation

Hue refers to what colors appear in your picture. Saturation refers to how strong or deep those colors are. For example, a black and white photo has zero saturation.

To adjust the hue or saturation of an image in Photoshop, start by having your image open.

1. Go to the Image menu and under Adjustments choose Hue/Saturation.
2. In the Hue Saturation menu left-click and drag the pointers to adjust the hue or saturation of the image.
3. Click OK to apply your changes.

File Formats

When saving images for the World Wide Web it is important to use a file format that web browsers will accept. There are three common file formats accepted by web browsers:

- ✓ GIF
- ✓ JPG
- ✓ PNG

For most photorealistic images I recommend using JPG, as it will preserve as much quality as you wish while compressing the file size.

GIF is a good choice for icons or line-drawing images, especially if you want some part of your image to be transparent.

Be sure to select the appropriate file format when you save your image! (Figure 14)

When saving as a JPG you will be prompted to adjust the compression/quality level (Figure 15). A high quality image will mean less compression and a larger file size. A low quality image implies a smaller file size at the cost of clarity.

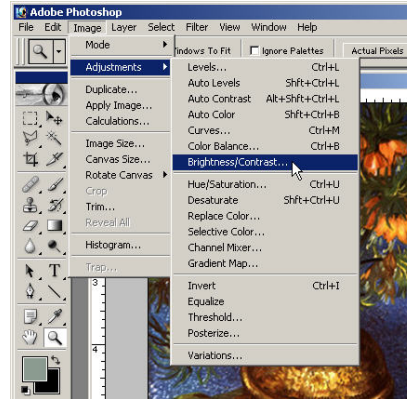


Figure 12 In the File menu choose Brightness/Contrast under Adjustments.

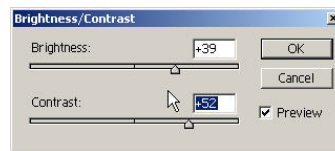


Figure 13 Left-click and drag the pointer to adjust.

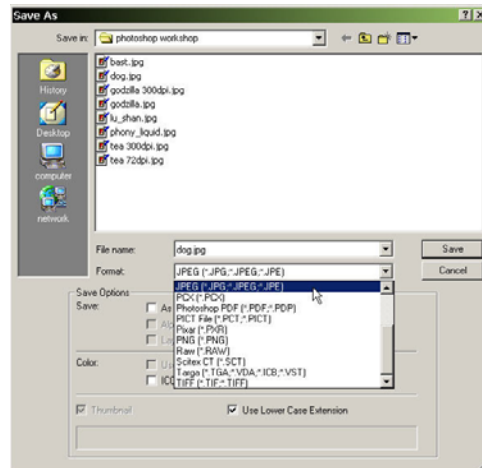


Figure 14 From the Format menu select the file type you wish to save you image in.

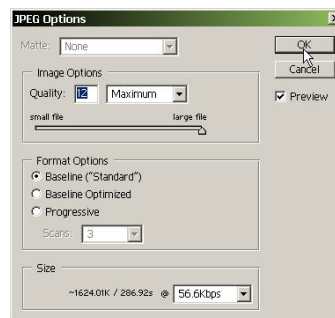


Figure 15 Adjust the slider to determine quality and file size.